

Propiconazole 250

Issued: July, 2010

Section 1: SUBSTANCE IDENTIFICATION AND SUPPLIER

Trade Name:	UNITED FARMERS PROPICONAZOLE 250 FUNGICIDE
Substance:	Active ingredient is an azole derivative.
Product Use:	Agricultural fungicide for use as described on the product label.
Company Identification:	Ravensdown Fertiliser Co-operative Limited – Incorporated in New Zealand
Address:	2 Birksgate Rd Rous Head North Fremantle, WA 6160
Customer Centre:	1800 624 122
Poisons Information Centre:	13 1126 in Australia, 0800 764 766 in New Zealand
Emergency Telephone Number:	For specialist advice call 1800 705 766 (24hr) (Emergencies Only)
Transport Emergency:	IN AN EMERGENCY, DIAL 000 – FIRE or POLICE

Section 2: HAZARD IDENTIFICATION

Statement of Hazardous Nature	This product is classified as: Hazardous according to the criteria of NOHSC Australia. This product does not meet the criteria of the Australian Dangerous Goods (ADG) Code. However, this is a C1 Combustible Liquid and for storage meets the definition of Dangerous Goods.
Risk Phrases:	R22 Harmful if swallowed. R65 Harmful: May cause lung damage if swallowed.
Safety Phrases:	S20 When using, do not eat or drink. S45 In case of accident or if you feel unwell, contact a doctor or Poisons Information Centre immediately (show the label where possible). S36/37 Wear suitable protective clothing and gloves.

Section 3: COMPOSITION INFORMATION

INGREDIENTS	CAS No	Conc, %	TWA (mg/m ³)	STEL (mg/m ³)
Propiconazole	60207-90-1	250 g/L	not set	not set
Liquid hydrocarbon	64742-88-7	654 g/L	not set	not set
Other non hazardous ingredients	secret	to 100%	not set	not set

This is a commercial product whose exact ratio of components may vary slightly. Minor quantities of other non hazardous ingredients are also possible.

The TWA exposure value is the average airborne concentration of a particular substance when calculated over a normal 8 hour working day for a 5 day working week. The STEL (Short Term Exposure Limit) is an exposure value that should not be exceeded for more than 15 minutes and should not be repeated for more than 4 times per day. There should be at least 60 minutes between successive exposures at the STEL. The term 'peak' is used when the TWA limit, because of the rapid action of the substance, should never be exceeded, even briefly.

Section 4: FIRST AID MEASURES

Emergency Overview

Physical Description & Colour:

Clear yellowish liquid.

Odour:

Mild, non-specific odour.

Major Health Hazards:

Harmful if swallowed, if aspirated, may cause lung damage.

General Information:

You should call The Poisons Information Centre if you feel that you may have been poisoned, burned or irritated by this product. The number is 13 1126 from anywhere in Australia (0800 764 766 in New Zealand) and is available at all times. Have this MSDS with you when you call.

Inhalation:	First aid is not generally required. If in doubt, contact a Poisons Information Centre or a doctor.
Skin Contact:	Irritation is unlikely. However, if irritation does occur, flush with lukewarm, gently flowing water for 5 minutes or until chemical is removed.
Eye Contact:	Immediately flush the contaminated eye(s) with lukewarm, gently flowing water for 5 minutes or until the product is removed, while holding the eyelid(s) open. Obtain medical advice immediately if irritation occurs.
Ingestion:	If swallowed, do NOT induce vomiting. Wash mouth with water and contact a Poisons Information Centre, or call a doctor.

Section 5: FIRE FIGHTING MEASURES

Fire and Explosion Hazards:	This product is classified as a C1 combustible product. There is a slight risk of an explosion from this product if commercial quantities are involved in a fire. Violent steam generation or eruption may occur upon application of direct water stream on hot liquids. Vapours from this product are heavier than air and may accumulate in sumps, pits and other low-lying spaces, forming potentially explosive mixtures. They may also flash back considerable distances. Fire decomposition products from this product may be toxic if inhaled. Take appropriate protective measures.
Extinguishing Media:	Preferred extinguishing media are carbon dioxide, dry chemical, foam, water fog.
Fire Fighting:	If a significant quantity of this product is involved in a fire, call the fire brigade.
Flash point:	Not flammable.
Upper Flammability Limit:	No data.
Lower Flammability Limit:	No data.
Autoignition temperature:	No data.
Flammability Class:	C1

Section 6: ACCIDENTAL RELEASE MEASURES

Spills and Disposal:	Wear appropriate protective clothing. Exclude non-essential people from the area. Contain spill and absorb with inert material such as soil, sand or absorbent granules and place in a sealable waste container. Dispose of waste safely in an approved landfill.
Protective Clothing:	For appropriate personal protective equipment see section 8.
Environmental Precaution:	Prevent from entering drains, waterways or sewers. If spill does enter waterways contact local authority.

Section 7: HANDLING AND STORAGE

Handling:	Keep exposure to this product to a minimum, and minimise the quantities kept in work areas. Check Section 8 of this MSDS for details of personal protective measures, and make sure that those measures are followed. The measures detailed below under "Storage" should be followed during handling in order to minimise risks to persons using the product in the workplace. Also, avoid contact or contamination of product with incompatible materials listed in Section 10.
Storage:	Note that this product is combustible and therefore, for Storage, meets the definition of Dangerous Goods in some states. If you store large quantities (tonnes) of such products, we suggest that you consult your state's Dangerous Goods authority in order to clarify your obligations regarding their storage. Protect this product from light. Store in the closed original container in a dry, cool, well-ventilated area out of direct sunlight. Make sure that the product does not come into contact with substances listed under "Incompatibilities" in Section 10. Some liquid preparations settle or separate on standing and may require stirring before use. Check packaging - there may be further storage instructions on the label.

Section 8: EXPOSURE CONTROL/PERSONAL PROTECTION

The following Australian Standards will provide general advice regarding safety clothing and equipment:
Respiratory equipment: **AS/NZS 1715**, Protective Gloves: **AS 2161**, Industrial Clothing: **AS2919**, Industrial Eye Protection: **AS1336** and **AS/NZS 1337**, Occupational Protective Footwear: **AS/NZS2210**.

Exposure Limits	Exposure limits have not been established by NOHSC for any of the significant ingredients in this product. The ADI for Propiconazole is set at 0.04mg/kg/day. The corresponding NOEL is set at 4mg/kg/day. ADI means Acceptable Daily Intake and NOEL means No-observable-effect-level. Values taken from Australian ADI List, Dec 2004. No special equipment is usually needed when occasionally handling small quantities. The following instructions are for bulk handling or where regular exposure in an occupational setting occurs without proper containment systems.
Ventilation:	No special ventilation requirements are normally necessary for this product. However make sure that the work environment remains clean and that vapours and mists are minimised.
Eye Protection:	Eye protection such as protective glasses or goggles is recommended when this product is being used.

Skin Protection:	The information at hand indicates that this product is not harmful and that normally no special skin protection is necessary. However, we suggest that you routinely avoid contact with all chemical products and that you wear suitable gloves (preferably elbow-length) when skin contact is likely.
Protective Material Types:	We suggest that protective clothing be made from the following materials: rubber, PVC.
Respirator:	Usually, no respirator is necessary when using this product. However, if you have any doubts consult the Australian Standard mentioned above. Safety deluge showers should, if practical, be provided near to where this product is being used.

Section 9: PHYSICAL AND CHEMICAL PROPERTIES

Physical Description & colour:	Clear yellowish liquid.
Odour:	Mild, non-specific odour.
Boiling Point:	Not available.
Freezing/Melting Point:	No specific data. Liquid at normal temperatures.
Volatiles:	No specific data. Expected to be low at 100°C.
Vapour Pressure:	No data.
Vapour Density:	No data.
Specific Gravity:	0.99 approx
Water Solubility:	Emulsifiable.
pH:	No data.
Volatility:	No data.
Odour Threshold:	No data.
Evaporation Rate:	No data.
Coeff Oil/water Distribution:	No data
Autoignition temp:	No data.

Section 10: STABILITY AND REACTIVITY

Reactivity:	This product is unlikely to react or decompose under normal storage conditions. However, if you have any doubts, contact the supplier for advice on shelf life properties.
Conditions to Avoid:	Protect this product from light. Store in the closed original container in a dry, cool, well-ventilated area out of direct sunlight.
Incompatibilities:	Strong acids, strong bases, strong oxidising agents.
Fire Decomposition:	Carbon dioxide, and if combustion is incomplete, carbon monoxide and smoke. Nitrogen and its compounds, and under some circumstances, oxides of nitrogen. Occasionally hydrogen cyanide gas. Water. Carbon monoxide poisoning produces headache, weakness, nausea, dizziness, confusion, dimness of vision, disturbance of judgment, and unconsciousness followed by coma and death.
Polymerisation:	This product will not undergo polymerisation reactions.

Section 11: TOXICOLOGICAL INFORMATION

Potential Health Effects

Inhalation

Short Term Exposure:	Significant inhalation exposure is considered to be unlikely. Available data indicates that this product is not harmful. In addition product is unlikely to cause any discomfort or irritation.
Long Term Exposure:	No data for health effects associated with long term inhalation.

Skin Contact

Short Term Exposure:	Available data indicates that this product is not harmful. It should present no hazards in normal use. However product may be mildly irritating, but is unlikely to cause anything more than mild discomfort which should disappear once contact ceases.
Long Term Exposure:	No data for health effects associated with long term skin exposure.

Eye Contact

Short Term Exposure:	Exposure via eyes is considered to be unlikely. This product is believed to be mildly irritating, to eyes, but is unlikely to cause anything more than mild transient discomfort.
Long Term Exposure:	No data for health effects associated with long term eye exposure.

Toxicity:

For Propiconazole:

LD₅₀ Oral (Rat) 1517mg/kg LD₅₀ Oral (Mouse) 1419mg/kg
 LD₅₀ Dermal (Rat) >4000mg/kg LD₅₀ Dermal (Rabbit) >6000mg/kg
 LC₅₀ Inhal (Rat, 4hr) >5800mg/m³

Ingestion

Short Term Exposure:	Significant oral exposure is considered to be unlikely. Because of the low viscosity of this product, it may directly enter the lungs if swallowed, or if subsequently vomited. Once in the lungs, it is very difficult to remove and can cause severe injury or death. This product is unlikely to cause any irritation problems in the short or long term.
Long Term Exposure:	No data for health effects associated with long term ingestion.

Carcinogen Status

NOHSC: No significant ingredient is classified as carcinogenic by NOHSC.
NTP: No significant ingredient is classified as carcinogenic by NTP.
IARC: No significant ingredient is classified as carcinogenic by IARC.

Classification of Hazardous Ingredients:	Ingredient	Risk Phrases
	Propiconazole	Conc>=25%: Xn; R22; R43

Section 12: ECOLOGICAL INFORMATION

Persistence / Degradability: Propiconazole will slowly degrade in soil and aquatic systems. Average field half life of propiconazole is 40 - 70 days.

For Propiconazole:

Birds:	LD ₅₀ Japanese quail: 2223mg/kg	LD ₅₀ Bobwhite quail: >2825mg/kg	LD ₅₀ mallard ducks: >2510mg/kg
Fish:	LC ₅₀ carp: 6.8mg/L	LC ₅₀ rainbow trout: 5.3mg/L	LC ₅₀ golden orfe: 5.1 mg/L
Algae:	EC ₅₀ 0.02-13.6mg/L		
Bees:	not toxic to bees		
Daphnia:	EC ₅₀ 4.8mg/L		

After oral administration to the rat, Propiconazole is rapidly absorbed and also rapidly and almost completely eliminated with urine and faeces. Residues in tissues were generally low and there was no evidence for accumulation or retention of Propiconazole or its metabolites. The major sites of enzymatic attack are the propyl side-chain and the cleavage of the dioxolane ring, together with some attack at the 2,4-dichlorophenyl and 1,2,4-triazole rings. In the mouse, the major metabolic pathway is via cleavage of the dioxolane ring.

Plants: Degradation proceeds through hydroxylation of the n-propyl side-chain and deketalisation of the dioloxane ring. After cleavage of triazole, triazole-alanine is formed as the main metabolite. Metabolites are conjugated mostly as glucosides.

The main degradation pathways are hydroxylation of the propyl side-chain and the dioxolane ring, and finally formation of the 1,2,4-triazole. Koc (ads) 950mL/g, immobile in soil.

Section 13: DISPOSAL INFORMATION

Follow label advice for the disposal of empty containers, packaging and for the return of refillable containers.

Product Disposal: For the disposal of unwanted / unusable chemicals, seek advice from suppliers, local government, your local Waste Management Authority and consult ChemClear, 1800 008 182 <http://www.chemclear.com.au/>

Container Disposal: Where possible, used containers should be recycled after triple rinsing. Check with local suppliers and or DrumMUSTER <http://www.drummuster.com.au/>. Otherwise, bury at an authorised landfill. Before disposing of unwanted containers or used packaging on a property, ensure that all appropriate regulations, both Local and State Government, are observed. Significant penalties may apply.

Section 14: TRANSPORT INFORMATION

ADG Code: This product is not classified as a Dangerous Good. No special transport conditions are necessary unless required by other regulations.

UN Number: None allocated

SUSDP Classification: S6

ADG Classification: None allocated. Not a Dangerous Good under the ADG Code.

Section 15: REGULATORY INFORMATION

AICS: All of the significant ingredients in this formulation are to be found in the public AICS Database. The following ingredients: Propiconazole, liquid hydrocarbon are mentioned in the SUSDP.

Section 16: OTHER INFORMATION

This MSDS contains only safety-related information. For other data see product literature.

This MSDS supersedes October, 2005 revision and was reviewed: February, 2010

Please read all labels carefully before using product.

This MSDS is prepared in accord with the NOHSC document "National Code of Practice for the Preparation of Material Safety Data Sheets" 2nd Edition [NOHSC:2011(2003)]